DOCUMENT RESUME

ED 396 268 CS 012 513

AUTHOR Dowdell, Tyrone
TITLE The Effectiveness of Direct Instruction on the Reading Achievement of Sixth Graders.
PUB DATE [96]
NOTE 8p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Comparative Analysis; *Grade 6; Instructional Effectiveness; Intermediate Grades; *Reading Achievement; *Reading Improvement; *Reading Instruction; Reading Research; *Reading Strategies
IDENTIFIERS Chicago Public Schools IL; *Direct Instruction; Iowa Tests of Basic Skills

ABSTRACT

A study examined the effect of Direct Instruction (DI) on the reading achievement of sixth graders. Subjects were 72 Chicago Public School students, nearly 100% minority. In the school year of 1994-95 no students received DI. A sample of 30 students who performed poorly, with stanines of 1, 2, and 3 on the Iowa Tests of Basic Skills (ITBS) were chosen to receive reading instruction through the DI method in 1995-96. The remaining students in the grade level did not receive the program. Results of the 1994 ITBS were used as a pretest and the 1995 scores were used as a posttest to measure students' gains within the year. Results indicated that the experimental group's gain from 1994-95 was 1.06, and the control group's was .45. These findings suggest that the Direct Instruction model should continue. If the experimental group did not receive DI and had experienced a year's growth of only .45, they would be even farther behind than in the previous year. Further research using a larger sample population should be undertaken. Other recommendations are that teachers of DI should receive continual inservice training and that class size for students receiving Direct Instruction should be reduced. (Contains 2 tables of data and 10 references.) (CR)

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THE EFFECTIVENESS OF DIRECT INSTRUCTION ON THE READING ACHIEVEMENT OF SIXTH GRADERS

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Tyrone Dowdell

ED 396 268

The opportunity of receiving a quality education in the Public school system has been questioned for several years. Complaints about quality often are pointed in the direction of the school systems. Companies are not satisfied with the college graduates seeking employment. In turn, colleges and universities are most disappointed with their future prospects, especially those from the Public school system. High schools place the blame on grammar and middle schools for sending ill-prepared students. Grammar and middle schools criticize administration, students, parents, and society as a whole.

Obviously, no one is willing to take responsibility for the fact that far too many public school student "skate" through the system without having the basic knowledge needed to enter college. We often hear news stories about high school students reading on a second or third grade level. However, those news stories are actually nightmares for those students and their parents that have been cheated and denied the quality education deserved.

Public Schools in Chicago are now being held accountable for students' academic progress. Chicago Public Schools receive a report card detailing scores at different grade levels and subject areas. These report cards go to the newspapers and are very closely monitored by the Chicago Public School Superboard.

So in an effort to remedy students poor showing in reading, a number of schools piloted an old method, DISTAR. Hopes are that once students are able to read, they will function and produce in other subject areas.

When Lyndon Johnson became president in 1963, one of his initial items of priority concentrated on America's poverty stricken. He quickly established the Economic Opportunity Act (EOA) in 1964 and the Elementary and Secondary Act (ESEA) in 1965.

As Johnson was signing legislation to help the poor, Bereiter (1965) was studying the impoverished. Bereiter directed an experimental pre-school for disadvantaged students at the University of Illinois in 1964-66. Later in 1966 he co-authored Teaching Disadvantaged Children in the Preschool with Engleman. The basic

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theory behind the Engleman-Becker model of direct instruction is reported in the book.

Although in recent years the term "direct instruction" has been used in a multitude of ways, we will equate Direct Instruction, or **DI**, with DISTAR. As DISTAR was the more commonly accepted term in the 1960s and 1970s, **DI** is now the more widely used term.

The Direct Instruction System for Teaching and Remediation (DISTAR) reading program was specifically developed to address the educational needs of children from low-income homes who lack language skills necessary for success in school (Stallings and Stipek, 1986). Snow (1986) asserted that substantial evidence exists that less able learners perform better when instruction is tightly structured, lessons are broken down into a sequence of simplified units, and teachers or instructional materials exercise control over minute-to-minute activities and provide frequent feedback. DI was a tightly structured direct instruction reading program with a strong oral language emphasis. Teachers moved through scripts that prompt exactly what to say and do, with specific activities broken down in sequential order.

Since the initial implementation of DI in education programs in 1969, much debate and controversy has ensued. Bridgman (1986) stated that although all of the children in a program gained an intellectual advantage in school, those students reported twice as many delinquent acts as did the other groups. The children in the DI group also had lower expectations for educational attainment and poor relationships with their families (from the report "Consequences of Three Preschool Curriculum Models Though Age 15").

Levin (1984) continued to highlight disadvantages of DI. DI emphasized drill and practice. As a result, skills were without substance, and mechanics over content was stressed. Levin felt an effective curriculum would actively engage students interest and motivate them to learn.

Proponents of DI, Gersten, Woodard, and Darch (1980), applauded the program saying students are provided a means for maintaining a high success rate. They strongly felt that the student must first master basic academic strategies in highly controlled contexts, or there would be little likelihood that the student will master them at all.

The most comprehensive research studies on DI are those describing Project Follow Through. This program was used over 4 years with 9,152 primary grade children (78% economically disadvantaged). The results of Project Follow

Through identified significant gains in reading with an IQ gain of 8,555 to 9.1 points, as measured by the Slosson Intelligence Test (Becker & Engleman 1978). Gersten & Carnine(1986), also added that the students in Project Follow Through programs have maintained their elementary school gains in comprehension through high school.

Other researchers have also found that the DI reading programs increase students' reading achievement (Becker, 1973; Bowers, 1972; Hughes, 1972; Singer, 1973; Summerell & Brannegan, 1977). Negative aspects of the program was identified, but they did not negate the fact that reading achievement improved when the DI method was used. DI was not the answer to all reading and language needs of all learners. However, it did make a positive and significant impact on the reading achievement of children from low-income homes.

Therefore, the purpose of this study is to determine the effect of Direct Instruction on the reading achievement of sixth graders.

Procedures

Population/Sample

The population for this study will include 72 sixth grade students. The students are from a Chicago Public School. The school is located in a predominantly low-middle socio-economic neighborhood in Chicago's Auburn Community. The population is comprised of 100% minority children.

From the 72 sixth grade students, school records indicate that 20 students receive the DISTAR method and 52 students did not. 72 students were given the ITBSon sprint 1994. The 30 students with the lowest stanines received the DISTAR method.

Each spring the Iowa Tests of basic Skills (ITBS) are administered in the Chicago Public Schools. In the school year 1994-95, when no students received DIRECT INSTRUCTION, a sample of students were identified who performed poorly with stanines of 1, 2, and 3 on the ITBS. In 1995-96, this identified population received reading via the Direct Instruction method. The remaining students in the grade level did not receive the program. The reading results of the ITBS administered in the spring of 1996 were compared to the results of the spring 1995 ITBS. Students' gains within the year were compared. The pretest - posttest control group design will be employed.

The Iowa Test of Basic Skills was used. The within grade Kruder-Richardson twenty reliabilities for the eleven subtests are generally greater than .85. The Kruder-Richardson twenty reliability of each levels' composite score is .98. The intercorrelation between scores range from .70 to .85.

Findings of the Study

The results from the spring 1994 and spring 1995 ITBS scores are compared. In 1994, no classes received Direct Instruction. However, Direct Instruction was implemented with one group of students who scored with stanines of 1, 2, and 3 in 1994. The other group received no DI. Results from the 1994 ITBS reading test was used as a pretest and results from the 1995 ITBS reading test was used as a posttest.

Table I.

Means, Standard Deviations, a t Tests for Experimental and Control Groups for Reading Achievement Scores.

Test	Experimental	Control	t
Pretest	N=30	N=30	
M	4.26	5.77	
SD	1.04	1.07	
			5.69
Posttest			
M	5.29	6.45	
SD	.94	1.1	
			1.88

Table II.

Gains in Reading Achievement for Experimental and Control Groups from Spring 1994 to Spring 1995.

	Exp n = 30	Control n = 30	t
Gains			
M	1.06	.45	
SD	.76	.73	
			2.77

Summary

The purpose of this study was to examine the effectiveness of Direct Instructions on the reading achievement of sixth graders. Examination of the 1994 pretest scores indicate that the experimental group and control group were significantly different from the beginning: The experimental group had a mean reading achievement of 4.26. The control group had a mean achievement of 5.77 in reading, a year and a half higher mean achievement while in the fifth grade.

Examination of the 1995 posttest scores show that there has been no significant changes in reading for the two groups. The experimental group has a mean reading achievement of 5.29; the control group had an achievement mean of 6.45, still showing nearly a year and a half higher mean achievement while in the sixth grade.

Table II indicates that although the experimental group's mean gain was slightly higher than the control group's, 1.06 as compared to .45, the difference was significant. This leads to the rejection of the null hypothesis.

Conclusions

The results of research findings in this study indicate that Direct Instruction did not overwhelming improve students' scored. The experimental's group gain from 1994 to 1995 was 1.06, approximately one year's growth. In one year, students are expected to gain at the minimum, one year's growth. Also, keep in mind that the experimental group is already showing reading deficits. In 1944, the fifth grade mean reading achievement was 4.26; in 1994, the sixth grade mean reading achievement was 5.29. The experimental group must show more than a yearly gain every year because they will continuously lag behind.

The results from the study were in contrast to the review of literature. Snow (1986) asserted that substantial evidence exists that less able learners perform better when instruction is tightly structured as in the Direct Instruction program. The research findings in this study are consistent with Levin (1984). The Direct Instruction curriculum is ineffective because of its emphasis on drill and practice. As a result, skills are without substance, and mechanics over content is stressed.

Implications

The results of this study suggests that the Direct Instruction model should continue. The experimental group showed a yearly gain of 1.06 as compared to .45 of the control group. If the experimental group did not receive Direct Instruction, and received a year's growth of only .45, they would be even further behind than the previous year.

Also, 1995 was the initial year of Direct Instruction at the public school. If Direction Instruction can prove to be a stable force in its piloting stage, the future should result in significantly higher yearly growth scores.

Recommendations

1. Continue use of Direct Instruction with a variety of ability grouped students.

2. Teachers of Direct Instruction should continuously receive in-service training.

3. Reduce class size of students receiving Direct Instruction.

4. For further research:

    a. use a larger sample/population
    b. include random sampling
    c. conduct longitudinal study

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